

1910 publisher: Niles Wildlife Habitat Management Institute  
Madison, MS.

# ***PROCEEDINGS***



## ***THE DELTA***

***Connecting Points of View for  
Sustainable Natural Resources***

***August 13-16, 1996  
Memphis Cook Convention Center  
Memphis, Tennessee***

## **Large-Scale Study of Reforestation Methods in Sharkey County, Mississippi**

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There is growing interest in reforestation in the Delta. Government initiatives such as the Conservation Reserve Program and the Wetland Reserve Program provide landowners economic incentives for reforestation. These programs have been very successful. Far more applications have been received than the agencies are able to fund. Thus there is an opportunity to address landowners' reforestation needs with other methods.

One factor that makes reforestation difficult economically for landowners is the long interval between the investment incurred during planting and the return from timber harvest, typically more than thirty years for bottomland hardwood species. This problem is being addressed in a research and demonstration project that is underway in Sharkey County, Mississippi. Researchers and managers from forest industry, government agencies, and academia are comparing different reforestation methods, including direct seeding of acorns, planting oak seedlings, and a nurse crop of cottonwood and oak. The nurse crop is not a new silvicultural technique, but one that has seldom been used in the United States. The nurse crop idea came from Crown Vantage, Inc., which has used it in its landowner assistance program for cases where the landowner wants to create an oak forest on marginal farmland but needs an economic return sooner than the oaks can provide.

In the nurse crop demonstration in Sharkey County, cottonwood was planted in 1995 at a twelve by twelve-foot spacing and both herbicide and mechanical cultivation are being used to control weeds. After two growing seasons of cottonwood alone, Nuttall oak will be planted in 1997 at twelve-foot spacing in between every other row of cottonwood. Research from the Forest Service's Southern Hardwood Laboratory has shown that cottonwood can yield over 20 cords of wood by age ten on Sharkey clay soils. In the nurse crop technique, cottonwood can either be thinned at age ten and the remainder left for sawlogs or can be completely harvested to release the oaks. The nurse crop technique is economically attractive because it provides for early income while maintaining the long-term objective of establishing an oak forest. It is good ecologically

because it rapidly provides the vertical structure needed by many forest-dwelling animals, especially birds.

For more information about the study, contact Jim Shepard, NCASI, P. O. Box 141020, Gainesville, Florida 32614; (352) 377-4708, Ext. 227; [J\\_Shepard@src-ncasi.org](mailto:J_Shepard@src-ncasi.org).